

AMENDMENTS TO THE CLAIMS

The claims relating to the above-captioned patent application, as amended herein and with the status thereof, are as follows:

1. (Currently amended) A disk drive, comprising:

5 a housing;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

an actuator arm drive assembly associated with said actuator arm assembly;

10 a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said latch pivot is disposed in non-parallel relation to said actuator arm pivot, and wherein said first latch member moves from a non-latching position to a latching position in response to said disk drive ~~experiencing a shock event~~ being exposed to a first
15 force and while said transducer is in a parked position.

2. (Original) The disk drive of Claim 1, wherein said housing comprises a base plate.

3. (Original) The disk drive of Claim 1, wherein said actuator arm assembly is a
20 rotary actuator arm assembly.

4. (Original) The disk drive of Claim 1, wherein said transducer is a read/write transducer.

5. (Previously presented) The disk drive of Claim 1, wherein said housing comprises a base plate, wherein said first latch member comprises a latch, wherein said first latch member is movable between said non-latching position and said latching position about said latch pivot, and wherein said latch is disposed further from said base plate when said first latch member is in said latching position versus said non-latching position.

6. (Original) The disk drive of Claim 1, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass that is at least partially disposed within said first cup.

7. (Original) The disk drive of Claim 6, wherein said housing comprises a base plate, and wherein said first cup opens at least generally toward said base plate.

8. (Original) The disk drive of Claim 6, wherein said first cup comprises an annular sidewall that is disposed about a first reference axis, wherein said annular sidewall comprises a plurality of annular, planar facets having different slopes.

9. (Original) The disk drive of Claim 6, wherein said first latch member comprises a second cup, wherein said first and second cups are disposed on opposite sides of said latch pivot.

10. (Original) The disk drive of Claim 9, wherein said housing comprises a base plate, and wherein said first cup opens at least generally toward said base plate and said second cup opens at least generally away from said base plate.

11. (Previously presented) The disk drive of Claim 1, wherein said at least one data storage disk is movably interconnected with said housing within a first reference plane, wherein a second reference plane is perpendicular to said first reference plane, and wherein said actuator arm latch assembly comprises means for latching said actuator arm assembly both when said disk drive is

exposed to a force having at least a primary component that is within said first reference plane and when said disk drive is exposed to a force having a primary component that is within said second reference plane.

12. (Previously presented) The disk drive of Claim 1, wherein said housing
5 comprises a base plate, and wherein said actuator arm latch assembly comprises means for latching said actuator arm assembly when said disk drive is exposed to a force having a primary component that is at least generally parallel with said base plate, as well as when said disk drive is exposed to a force having a primary component that is at least generally perpendicular to said base plate.

13. (Original) The disk drive of Claim 1, wherein said actuator arm latch assembly
10 comprises means for latching said actuator arm assembly when said disk drive is exposed to a force selected from the group consisting of a linear force, a rotational force, and any combination thereof.

14. (Previously presented) The disk drive of Claim 1, wherein a primary axis of said latch pivot is disposed within a first reference plane that is at least generally perpendicular to a second reference plane that contains a primary axis of said actuator arm pivot.

15 15. (Previously presented) The disk drive of Claim 1, wherein said actuator arm latch assembly comprises means for biasing said first latch member to said non-latching position.

16. (Original) The disk drive of Claim 1, wherein said actuator arm latch assembly comprises a second latch member fixedly mounted to said housing, whereby said second latch member does not move relative to said housing.

20 17. (Original) The disk drive of Claim 16, wherein said latch pivot is integrally formed with said second latch member.

18. (Original) The disk drive of Claim 16, wherein said first and second latch members are plastic.

19. (Previously presented) The disk drive of Claim 16, wherein said first latch member comprises first and second cups disposed on opposite sides of said latch pivot, wherein said
5 second latch member comprises third and fourth cups disposed on opposite sides of said latch pivot and at least generally vertically aligned with said first and second cups, respectively, wherein said actuator arm latch assembly further comprises first and second inertial masses disposed between said first and third cups and between said second and fourth cups, respectively.

20. (Original) The disk drive of Claim 16, wherein said first latch member
10 comprises a first cup and a latch that is engageable with said actuator arm assembly, wherein said second latch member comprises a second cup, wherein said first and second cups at least generally open toward each other, wherein said actuator arm latch assembly comprises a first inertial mass disposed between said first and second cups, and wherein said first and second cups are of a different configuration.

15 21. (Original) The disk drive of Claim 20, wherein said second cup is at least generally trough-shaped.

22. (Original) The disk drive of Claim 20, wherein said second cup is elongated in a direction that is parallel to a portion of said first latch member that has said latch.

23. (Currently amended) A disk drive, comprising:

20 a housing comprising a base plate;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing;

an actuator arm drive assembly associated with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a ~~latch pivot and a first latch member movably mounted on said latch pivot, wherein said first latch member~~ that comprises a latch and that, wherein
5 ~~said first latch member~~ is movable between non-latching and latching positions ~~about said latch pivot,~~ wherein said latch of said first latch member is disposed further from said base plate when said first latch member is in said latching position versus said non-latching position, and wherein said first latch member moves from said non-latching position to said latching position in response to said disk drive ~~experiencing a shock event~~ being exposed to a first force and while said transducer is in a
10 parked position.

24. (Currently amended) The disk drive of Claim 23, wherein said actuator arm latch assembly comprises a latch pivot, wherein said first latch member is movably mounted on said latch pivot, and wherein said latch pivot is disposed in non-parallel relation to an axis about which said actuator arm assembly moves.

15 25. (Currently amended) The disk drive of Claim 23, wherein said actuator arm latch assembly comprises a latch pivot, wherein said first latch member is movably mounted on said latch pivot, wherein said actuator arm assembly is mounted on an actuator arm pivot, wherein a primary axis of said latch pivot is disposed within a first reference plane that is at least generally perpendicular to a second reference plane that contains a primary axis of said actuator arm pivot.

20 26. (Currently amended) The disk drive of Claim 23, wherein said first latch member comprises a first cup ~~and a latch,~~ wherein said actuator arm latch assembly further comprises a first inertial mass that is at least partially disposed within said first cup.

27. (Original) The disk drive of Claim 26, wherein said first cup opens at least generally toward said base plate.

28. (Original) The disk drive of Claim 26, wherein said first cup comprises a planar base and an annular sidewall.

5 29. (Original) The disk drive of Claim 26, wherein said first cup comprises an annular sidewall that is disposed about a first reference axis, wherein said annular sidewall comprises a plurality of annular, planar facets having different slopes.

30. (Original) The disk drive of Claim 26, wherein said first latch member comprises a second cup, wherein said first and second cups are disposed on opposite sides of said
10 latch pivot.

31. (Original) The disk drive of Claim 30, wherein said first cup opens at least generally toward said base plate and said second cup opens at least generally away from said base plate.

32. (Previously presented) The disk drive of Claim 23, wherein said at least one
15 data storage disk is movably interconnected with said housing within a first reference plane, wherein a second reference plane is perpendicular to said first reference plane, and wherein said actuator arm latch assembly comprises means for latching said actuator arm assembly both when said disk drive is exposed to a force having a primary component that is within said first reference plane and when said disk drive is exposed to a force having a primary component that is within said second reference
20 plane.

33. (Original) The disk drive of Claim 23, wherein said actuator arm latch assembly comprises means for latching said actuator arm assembly when said disk drive is exposed to a force having a primary component that is at least generally parallel with said base plate, as well

as when said disk drive is exposed to a force having a primary component that is at least generally perpendicular to said base plate.

34. (Original) The disk drive of Claim 23, wherein said actuator arm latch assembly comprises means for latching said actuator arm assembly when said disk drive is exposed to a force selected from the group consisting of a linear force, a rotational force, and any combination thereof.

35. (Previously presented) The disk drive of Claim 23, wherein said actuator arm latch assembly comprises means for biasing said first latch member to said non-latching position.

36. (Original) The disk drive of Claim 23, wherein said actuator arm latch assembly comprises a second latch member fixedly mounted to said base plate, whereby said second latch member does not move relative to said base plate.

37. (Original) The disk drive of Claim 36, wherein said latch pivot is integrally formed with said second latch member.

38. (Original) The disk drive of Claim 36, wherein said first and second latch members are plastic.

39. (Previously presented) The disk drive of Claim 36, wherein said first latch member comprises first and second cups disposed on opposite sides of said latch pivot, wherein said second latch member comprises third and fourth cups disposed on opposite sides of said latch pivot and at least generally vertically aligned with said first and second cups, respectively, wherein said actuator arm latch assembly further comprises first and second inertial masses disposed between said first and third cups and between said second and fourth cups, respectively.

40. (Original) The disk drive of Claim 39, wherein said second cup is at least generally trough-shaped.

41. (Original) The disk drive of Claim 39, wherein said second cup defines a first cavity having a length dimension and a width dimension, wherein said length dimension is greater than said width dimension and further is greater than a diameter of said first inertial mass.

42. (Previously presented) The disk drive of Claim 39, wherein said third cup
5 has a different configuration than said first cup.

43. (Currently amended) A disk drive, comprising:
a housing;
at least one data storage disk movably interconnected with said housing;
an actuator arm assembly movably interconnected with said housing;
10 an actuator arm drive assembly associated with said actuator arm assembly;
a transducer interconnected with said actuator arm assembly and disposable in alignment with
said at least one data storage disk by said actuator arm drive assembly; and
an actuator arm latch assembly comprising a latch pivot and a first latch member movably
mounted on said latch pivot, wherein said first latch member comprises a first cup and a latch,
15 wherein said actuator arm latch assembly further comprises a first inertial mass at least partially
disposed within said first cup, and wherein said first latch member moves from a non-latching
position to a latching position in response to said disk drive ~~experiencing a shock event~~ being
exposed to a first force and while said transducer is in a parked position.

44. (Original) The disk drive of Claim 43, wherein said housing comprises a base
20 plate, and wherein said actuator arm latch assembly comprises a second latch member fixedly
mounted to said base plate, whereby said second latch member does not move relative to said base
plate.

45. (Original) The disk drive of Claim 44, wherein said latch pivot is integrally formed with said second latch member.

46. (Original) The disk drive of Claim 44, wherein said first and second latch members are plastic.

5 47. (Previously presented) The disk drive of Claim 44, wherein said first latch member comprises a second cup, wherein said first and second cups are disposed on opposite sides of said latch pivot, wherein said second latch member comprises third and fourth cups disposed on opposite sides of said latch pivot and at least generally vertically aligned with said first and second cups, respectively, wherein said actuator arm latch assembly further comprises a second inertial
10 mass, wherein said first inertial mass is disposed between said first and third cups and said second inertial mass is disposed between said second and fourth cups, respectively.

48. (Original) The disk drive of Claim 47, wherein said first cup opens at least generally toward said base plate, said second cup opens at least generally away from said base plate, said third cup opens at least generally away from said base plate, and said fourth cup opens at least
15 generally toward said base plate.

49. (Canceled).

50. (Currently amended) A method for reducing a potential for undesired contact
between a head and a data storage disk of a disk drive, comprising the steps of:

parking said head;

20 exposing said disk drive to a first shock event having at least a primary component that is at least generally parallel to said data storage disk, wherein said exposing said disk drive to a first shock event step is executed after said parking step;

executing a first precluding step comprising precluding said head from moving across said data storage disk as a result of said exposing said disk drive to a first shock event step, wherein said first precluding step comprises moving a first latching member from a non-latching position to a latching position in response to said first shock event step;

5 exposing said disk drive to a second shock event having at least a primary component that is at least generally perpendicular to said data storage disk, wherein said exposing said disk drive to a second shock event step is executed after said parking step; and

executing a second precluding step comprising precluding said head from moving across said data storage disk as a result of said exposing said disk drive to a second shock event step, wherein
10 said second precluding step comprises moving said first latching member from said non-latching position to said latching position in response to said second shock event step.

51. (Original) The method of Claim 50, wherein said parking step comprises disposing said head beyond a perimeter of said data storage disk.

52. (Original) The method of Claim 50, wherein said parking step comprises
15 disposing said head on said data storage disk.

53. (Previously presented) The method of Claim 50, wherein said executing first and second precluding steps each comprise moving a latch of said first latching member at least generally in an upward direction.

54. (Previously presented) The method of Claim 50, wherein said executing first
20 and second precluding steps each comprise pivoting said first latching member about a first reference axis that is disposed in non-parallel relation to a data storage surface of said data storage disk.

55. (Previously presented) The method of Claim 50, wherein said data storage disk rotates about a first reference axis, wherein said executing first and second precluding steps each comprise pivoting said first latching member about a second reference axis, and wherein said first and second reference axes are contained within first and second reference planes that are disposed in at least generally perpendicular relation.

56. (Original) The method of Claim 50, wherein an actuator arm assembly latch comprises first and second inertial masses, wherein said executing a first precluding step uses both of said first and second inertial masses, and wherein said executing a second precluding step uses said first inertial mass but not said second inertial mass

57. (Currently amended) The disk drive of Claim 1, wherein said actuator arm latch assembly further comprises a first inertial mass, wherein an acceleration of said first inertial mass due to ~~the shock events~~ said first force causes said first inertial mass to exert a force on said first latch member that attempts to move said first latch member from said non-latching position to said latching position.

58. (Currently amended) The disk drive of Claim 23, wherein said actuator arm latch assembly further comprises a first inertial mass, wherein an acceleration of said first inertial mass due to ~~the shock events~~ said first force causes said first inertial mass to exert a force on said first latch member that attempts to move said first latch member from said non-latching position to said latching position.

59. (Currently amended) The disk drive of Claim 43, wherein said actuator arm latch assembly further comprises a first inertial mass, wherein an acceleration of said first inertial mass due to ~~the shock events~~ said first force causes said first inertial mass to exert a force on said first

latch member that attempts to move said first latch member from said non-latching position to said latching position.

60. (Previously presented) A disk drive, comprising:

a housing;

a first data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing;

an actuator arm drive assembly associated with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said first data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot, a first latch member movably mounted on said latch pivot, and a second latch member, wherein said first latch member comprises first and second cups disposed on opposite sides of said latch pivot, wherein said second latch member comprises third and fourth cups disposed on opposite sides of said latch pivot and at least generally vertically aligned with said first and second cups, respectively, and wherein said actuator arm latch assembly further comprises first and second inertial masses disposed between said first and third cups and between said second and fourth cups, respectively.

61. (Previously presented) The disk drive of Claim 60, wherein:

said second latch member is stationary relative to said housing.

62. (Previously presented) A disk drive, comprising:

a housing;

a first data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing;

an actuator arm drive assembly associated with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said first data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising, a latch pivot, a first latch member movably mounted on said latch pivot, and first and second inertial masses, wherein an acceleration of both said first and second inertial masses causes said first and second inertial masses to exert a force on said first latch member that attempts to move said first latch member in response to a first force being exerted on said disk drive, and wherein an acceleration of only said second inertial mass causes said second inertial mass to exert a force on said first latch member that attempts to move said first latch member in response to a second force being exerted on said disk drive that is different from said first force.

63. (New) A disk drive, comprising:

a housing;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said latch pivot is disposed in non-parallel relation to said actuator arm pivot, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass that is at least partially disposed

within said first cup, wherein said housing comprises a base plate, and wherein said first cup opens at least generally toward said base plate.

64. (New) A disk drive, comprising:

a housing;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with

said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said latch pivot is disposed in non-parallel relation to said actuator arm pivot, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass that is at least partially disposed within said first cup, wherein said first cup comprises an annular sidewall that is disposed about a first reference axis, wherein said annular sidewall comprises a plurality of annular, planar facets having different slopes.

65. (New) A disk drive, comprising:

a housing;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said latch pivot is disposed in non-parallel relation to said actuator arm pivot, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass that is at least partially disposed within said first cup, wherein said first latch member comprises a second cup, wherein said first and second cups are disposed on opposite sides of said latch pivot.

66. (New) The disk drive of Claim 65, wherein said housing comprises a base plate, and wherein said first cup opens at least generally toward said base plate and said second cup opens at least generally away from said base plate.

67. (New) A disk drive, comprising:

a housing;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said latch pivot is disposed in non-parallel relation to said actuator arm pivot, wherein said actuator arm latch assembly comprises a second latch member fixedly mounted to said housing, whereby said second latch member does not move relative to said

housing, wherein said first latch member comprises first and second cups disposed on opposite sides of said latch pivot, wherein said second latch member comprises third and fourth cups disposed on opposite sides of said latch pivot and at least generally vertically aligned with said first and second cups, respectively, wherein said actuator arm latch assembly further comprises first and second inertial masses disposed between said first and third cups and between said second and fourth cups, respectively.

68. (New) A disk drive, comprising:

a housing;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said latch pivot is disposed in non-parallel relation to said actuator arm pivot, wherein said actuator arm latch assembly comprises a second latch member fixedly mounted to said housing, whereby said second latch member does not move relative to said housing, wherein said first latch member comprises a first cup and a latch that is engageable with said actuator arm assembly, wherein said second latch member comprises a second cup, wherein said first and second cups at least generally open toward each other, wherein said actuator arm latch assembly comprises a first inertial mass disposed between said first and second cups, and wherein said first and second cups are of a different configuration.

69. (New) The disk drive of Claim 68, wherein said second cup is at least generally trough-shaped.

70. (New) The disk drive of Claim 68, wherein said second cup is elongated in a direction that is parallel to a portion of said first latch member that has said latch.

5 71. (New) A disk drive, comprising:

a base plate;

at least one data storage disk movably interconnected with the housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

10 an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on the latch pivot, wherein said first latch member comprises a latch, wherein said first
15 latch member is movable between non-latching and latching positions about said latch pivot, wherein said latch of said first latch member is disposed further from said base plate when said first latch member is in said latching position versus said non-latching position, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass that is at least partially disposed within said first cup, wherein said
20 first cup opens at least generally toward said base plate.

72. (New) A disk drive, comprising:

a base plate;

at least one data storage disk movably interconnected with the housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with

5 said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on the latch pivot, wherein said first latch member comprises a latch, wherein said first latch member is movable between non-latching and latching positions about said latch pivot, wherein said latch of said first latch member is disposed further from said base plate when said first latch
10 member is in said latching position versus said non-latching position, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass that is at least partially disposed within said first cup, wherein said first cup comprises an annular sidewall that is disposed about a first reference axis, wherein said annular sidewall comprises a plurality of annular, planar facets having different slopes.

15 73. (New) A disk drive, comprising:

a base plate;

at least one data storage disk movably interconnected with the housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

20 an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on the latch pivot, wherein said first latch member comprises a latch, wherein said first latch member is movable between non-latching and latching positions about said latch pivot, wherein said latch of said first latch member is disposed further from said base plate when said first latch member is in said latching position versus said non-latching position, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass that is at least partially disposed within said first cup, wherein said first latch member comprises a second cup, wherein said first and second cups are disposed on opposite sides of said latch pivot.

74. (New) The disk drive of Claim 73, wherein said first cup opens at least generally toward said base plate and said second cup opens at least generally away from said base plate.

75. (New) A disk drive, comprising:

a base plate;

at least one data storage disk movably interconnected with the housing;

an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;

an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with

said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on the latch pivot, wherein said first latch member comprises a latch, wherein said first latch member is movable between non-latching and latching positions about said latch pivot, wherein

said latch of said first latch member is disposed further from said base plate when said first latch member is in said latching position versus said non-latching position, wherein said actuator arm latch assembly comprises a second latch member fixedly mounted to said base plate, whereby said second latch member does not move relative to said base plate, wherein said first latch member comprises
5 first and second cups disposed on opposite sides of said latch pivot, wherein said second latch member comprises third and fourth cups disposed on opposite sides of said latch pivot and at least generally vertically aligned with said first and second cups, respectively, wherein said actuator arm latch assembly further comprises first and second inertial masses disposed between said first and third cups and between said second and fourth cups, respectively.

10 76. (New) The disk drive of Claim 75, wherein said second cup is at least generally trough-shaped.

77. (New) The disk drive of Claim 75, wherein said second cup defines a first cavity having a length dimension and a width dimension, wherein said length dimension is greater than said width dimension and further is greater than a diameter of said first inertial mass.

15 78. (New) The disk drive of Claim 75, wherein said third cup has a different configuration than said first cup.

79. (New) A disk drive, comprising:
a housing;
at least one data storage disk movably interconnected with said housing;
20 an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;
an actuator arm drive assembly interconnected with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass at least partially disposed within said first cup, wherein said housing comprises a base plate, and wherein said actuator arm latch assembly comprises a second latch member fixedly mounted to said base plate, whereby said second latch member does not move relative to said base plate, wherein said first latch member comprises a second cup, wherein said first and second cups are disposed on opposite sides of said latch pivot, wherein said second latch member comprises third and fourth cups disposed on opposite sides of said latch pivot and at least generally vertically aligned with said first and second cups, respectively, wherein said actuator arm latch assembly further comprises a second inertial mass, wherein said first inertial mass is disposed between said first and third cups and said second inertial mass is disposed between said second and fourth cups, respectively.

80. (New) The disk drive of Claim 79, wherein said first cup opens at least generally toward said base plate, said second cup opens at least generally away from said base plate, said third cup opens at least generally away from said base plate, and said fourth cup opens at least generally toward said base plate.

81. (New) A method for reducing a potential for undesired contact between a head and a data storage disk of a disk drive, comprising the steps of:

parking said head;

exposing said disk drive to a first force having at least a primary component that is at least generally parallel to said data storage disk, wherein said exposing said disk drive to a first force step is executed after said parking step;

executing a first precluding step comprising precluding said head from moving across said data storage disk as a result of said exposing said disk drive to a first force step;

exposing said disk drive to a second force having at least a primary component that is at least generally perpendicular to said data storage disk, wherein said exposing said disk drive to a second force step is executed after said parking step; and

executing a second precluding step comprising precluding said head from moving across said data storage disk as a result of said exposing said disk drive to a second force step, wherein an actuator arm assembly latch comprises first and second inertial masses, wherein said executing a first precluding step uses both of said first and second inertial masses, and wherein said executing a second precluding step uses said first inertial mass but not said second inertial mass.

82. (New) A disk drive, comprising:

a housing comprising a base plate;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing;

an actuator arm drive assembly associated with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a first latch member that is movable between non-latching and latching positions, wherein a first portion of said first latch member is engageable with

said actuator arm assembly when said first latch member is in said latching position to preclude movement of said actuator arm assembly in a first direction, wherein said first portion is disposed further from said base plate when said first latch member is in said latching position versus said non-latching position.

- 5 83. (New) A disk drive, comprising:
- a housing;
 - at least one data storage disk movably interconnected with said housing;
 - an actuator arm assembly movably interconnected with said housing by an actuator arm pivot;
 - 10 an actuator arm drive assembly associated with said actuator arm assembly;
 - a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and
 - an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said latch pivot is disposed in non-parallel relation to said
 - 15 actuator arm pivot, and wherein said first latch member moves from a non-latching position to a latching position only in response to said disk drive being exposed to a shock event.

84. (New) A disk drive, comprising:
- a housing comprising a base plate;
 - at least one data storage disk movably interconnected with said housing;
 - 20 an actuator arm assembly movably interconnected with said housing;
 - an actuator arm drive assembly associated with said actuator arm assembly;
 - a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said first latch member comprises a latch, wherein said first latch member is movable between non-latching and latching positions about said latch pivot, wherein said latch of said first latch member is disposed further from said base plate when said first latch member is in said latching position versus said non-latching position, and wherein said first latch member moves from said non-latching position to said latching position only in response to said disk drive being exposed to a shock event.

85. (New) A disk drive, comprising:

a housing;

at least one data storage disk movably interconnected with said housing;

an actuator arm assembly movably interconnected with said housing;

an actuator arm drive assembly associated with said actuator arm assembly;

a transducer interconnected with said actuator arm assembly and disposable in alignment with said at least one data storage disk by said actuator arm drive assembly; and

an actuator arm latch assembly comprising a latch pivot and a first latch member movably mounted on said latch pivot, wherein said first latch member comprises a first cup and a latch, wherein said actuator arm latch assembly further comprises a first inertial mass at least partially disposed within said first cup, and wherein said first latch member moves from a non-latching position to a latching position only in response to said disk drive experiencing a shock event.